

WHAT IS CLAIMED IS:

- 1 1. A method comprising the steps of:
2 reading a first data representing a first portion of a transport stream;
3 providing a representation of the first data to a transport stream handler, wherein the
4 representation of the first data is provided in a transport stream format; and
5 receiving a bit-rate indicator based upon the first data, wherein the bit-rate indicator is
6 used to adjust a transmit bit rate at which a second portion of the transport stream
7 is provided.
- 1 2. The method as in Claim 1, wherein the transport stream format includes a data signal and
2 a clock signal.
- 1 3. The method as in Claim 1, wherein the bit-rate indicator is based on an amount of the
2 representation of the first data which has been received by the transport stream handler.
- 1 4. The method as in Claim 1, wherein the bit-rate indicator is based on the fullness of a data
2 FIFO (First In First Out) memory associated with the transport stream handler.

1 5. A method comprising the steps of:
2 reading data from a file;
3 setting a transmit bit-rate to a first bit-rate;
4 sending a transport stream based on the data to a demultiplexer at the transmit bit rate;
5 determining a number of transmitted bits between two program clocks referenced in a
6 common program stream, wherein the program clock references are read from the
7 transport stream;
8 determine a desired elapsed time between the two program clock;
9 determining a desired bit-rate based on the desired elapsed time and the number of
10 transmitted bits; and
11 setting the transmit bit-rate to the desired bit-rate.

1 6. The method as in Claim 5, wherein the transmit bit-rate is determined by calculating an
2 average number of bits associated with the transport stream sent to the demultiplexer per
3 unit time.

1 7. The method as in Claim 5, wherein the common program stream is determined by parsing
2 program stream information tables to determine a program identifier of a particular
3 program stream.

1 8. The method as in Claim 5, wherein the common program stream is determined by parsing
2 program map tables to determine a program identifier of a particular program stream.

1 9. The method as in Claim 5, wherein the step of setting the transmit bit-rate to the desired
2 bit-rate includes indicating that transmission of a portion of the transport stream should
3 be delayed.

- 1 10. A method comprising the steps of:
2 determining a desired bit-rate of a received transport stream;
3 determining a current bit-rate of the received transport stream;
4 determining a throttle amount based on the desired bit-rate and the current bit-rate; and
5 providing an indicator requesting the throttle amount.
- 1 11. The method as in Claim 10, wherein the desired bit-rate is based on calculating a desired
2 elapsed time between consecutive program clock references included in the received
3 transport stream.
- 1 12. The method as in Claim 10, wherein the throttle amount includes an amount of time to
2 wait before transmitting a portion of the transport stream.
- 1 13. The method as in Claim 10, wherein the throttle includes an amount of data to hold to
2 alter the current bit-rate.
- 1 14. The method as in Claim 10, wherein the desired bit-rate and the current bit-rate indicate a
2 number of bits per millisecond.
- 1 15. The method as in Claim 10, wherein the desired bit-rate and the current bit-rate indicate a
2 number of bits per microsecond.
- 1 16. The method as in Claim 10, wherein the indicator includes a providing a signal via
2 hardware signal.
- 1 17. The method as in Claim 16, wherein the signal is used to apply a value to a particular
2 register.
- 1 18. The method as in Claim 16, wherein the signal includes an interrupt.
- 1 19. The method as in Claim 10, wherein the indicator includes a software signal.

1 20. The method as in Claim 10, wherein the step of providing the indicator is only performed
2 when a difference between the desired bit-rate and the current bit-rate is greater than a
3 predetermined value.

1 21. The method as in Claim 10, further including the steps of:
2 determining if the throttle time is larger than a threshold;
3 reading new data from a file when the time is larger than the threshold; and
4 determining a new desired bit-rate based on the new data, when the time is larger than the
5 threshold.

- 1 22. A method comprising the steps of:
2 receiving data from a multimedia stream at a buffer;
3 determining a fullness of the buffer; and
4 providing an indicator to request a transmitting source to reduce a data rate of the
5 multimedia stream when the fullness is greater than a predetermined amount.
- 1 23. The method as in Claim 22, wherein the buffer includes a first-in-first-out memory array.
- 1 24. The method as in Claim 22, wherein the data is related to video data.
- 1 25. The method as in Claim 22, wherein the data is related to audio data.
- 1 26. The method as in Claim 22, wherein reducing the data rate of the multimedia stream
2 includes suspending transmission of a portion of the multimedia stream.

1 27. A system comprising:
2 a data processor having an I/O buffer;
3 a memory having an I/O buffer coupled to the I/O buffer of the data processor, the memory
4 capable of storing code to control said data processor to:
5 read data related to a transport stream from a file;
6 a multimedia port including:
7 a buss to provide data and an address to communicate with a first external device;
8 a set of general purpose I/O lines for communicating with a second external
9 device;
10 a TVO transmit portion to transmit TVO data; and
11 a transport stream transmit portion to transmit a representation of the transport
12 stream.

1 28. The method as in Claim 27, wherein the transport stream portion includes an indicator for
2 selecting between parallel and serial transmission of the representation of the transport stream.

1 29. A computer readable medium tangibly embodying a program of instructions to
 2 manipulate a data processor to:
 3 determine a desired bit-rate of a received transport stream;
 4 determine a current bit-rate of the received transport stream;
 5 determine a throttle amount based on the desired bit-rate and the current bit-rate; and
 6 provide an indicator requesting the throttle amount.

1 30. The method as in Claim 29, wherein the desired bit-rate is determined based on an
 2 amount of data between consecutive program clock references within the received
 3 transport stream.

1 31. The method as in Claim 29, wherein the throttle amount is an amount of time to suspend
 2 a transmission of the received transport stream.

- 1 32. A system comprising:
2 a means to determine a desired bit-rate of a received transport stream;
3 a means to determine a current bit-rate of the received transport stream;
4 a means to determine a throttle amount based on the desired bit-rate and the current bit-
5 rate; and
6 a means to provide an indicator requesting the throttle time.

- 1 33. A system comprising:
2 a means to receive data from a multimedia stream at a buffer;
3 a means to determine a fullness of the buffer; and
4 a means to provide an indicator to request a transmitting source to reduce a data rate of
5 the multimedia stream when the fullness is greater than a predetermined amount.